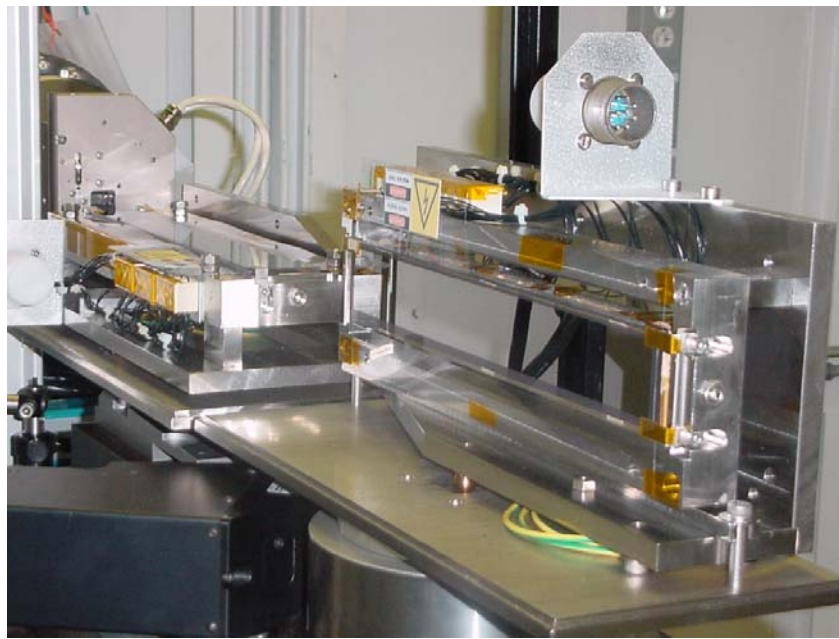


**ID-B is a micro-diffraction station with the following characteristics:**

Energy range: 24 – 35 keV

Usual energy: 29 – 35 keV



Focusing: Two Pt coated 300 mm long 8 electrode bimorph mirrors

**Best focal spot size: 5  $\mu\text{m}$  (V) x 7  $\mu\text{m}$  (H), with no tails**

*(This requires special tuning for the experiment)*

Standard focal spot size: 10  $\mu\text{m}$  (V) x 14  $\mu\text{m}$  (H), with no tails

Focal spot can be tuned up to 30  $\mu\text{m}$  (V) x 30  $\mu\text{m}$  (H)

Usual mirror to focal spot distance: 750 mm (sample to center of H mirror), but the beam can be focused on the sample or on the detector for the best resolution

### Detectors:

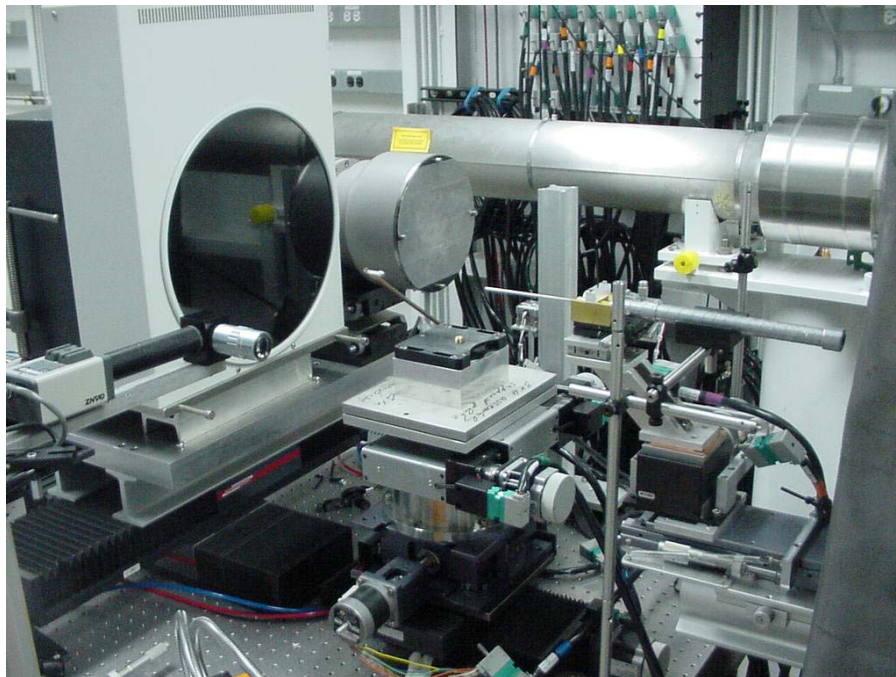
#### MAR165 CCD

Typical exposure time: 5s for high-Z, 60s for low-Z  
R+W time < 20s

#### MAR345 IP

Typical exposure time: 5s for high-Z, 30s for low-Z  
R+W time: < 60s for 150  $\mu\text{m}$  pixels  
< 240s for 100  $\mu\text{m}$  pixels

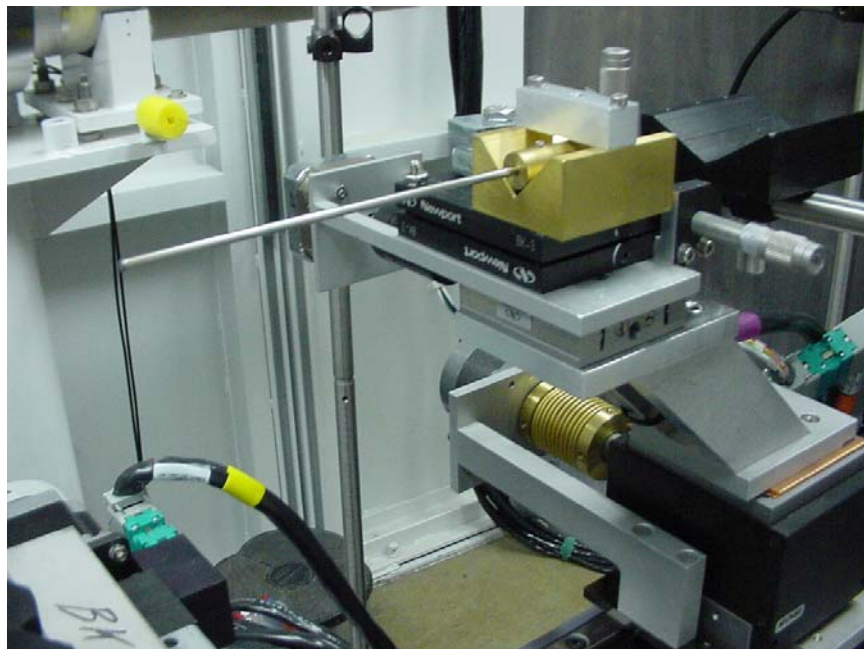
**BOTH DETECTORS ARE INSTALLED AND AVAILABLE IN PARALLEL FOR ALL EXPERIMENTS. IN THE MOST DEMANDING CASE, USERS DECIDE WHICH ONE IS BEST SUITED FOR INDIVIDUAL IMAGES.**



### Pinhole:

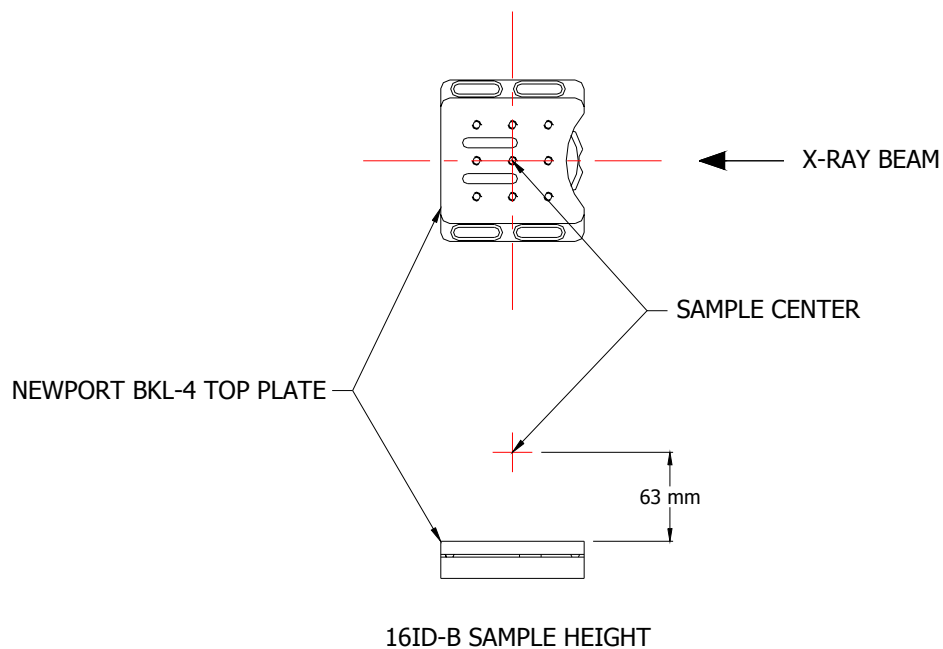
(Standard feature of the experimental setup)  
Range: 5 to 150  $\mu\text{m}$

Mounted at the end of 3mm diameter tubes, they can be inserted right against the diamond anvils



Cell mounts:

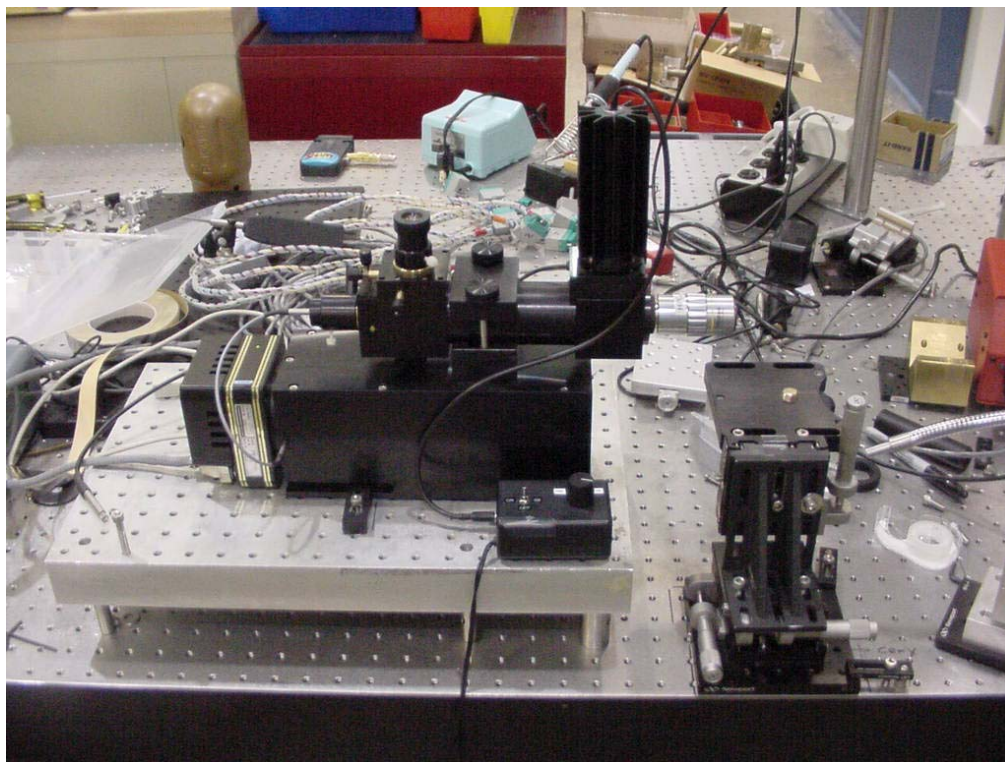
**ALL USERS SHOULD BRING DAC's ALREADY MOUNTED ON THE TOP PLATE OF A NEWPORT BKL-4 MOUNT as per the dimensions indicated below**





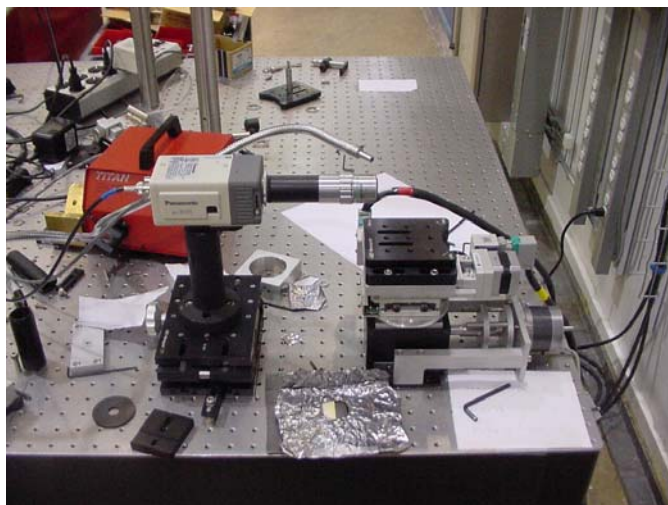
### Pressure measurement:

An off-line ruby luminescence system is available at all time for users who do not use internal x-ray diffraction calibrants

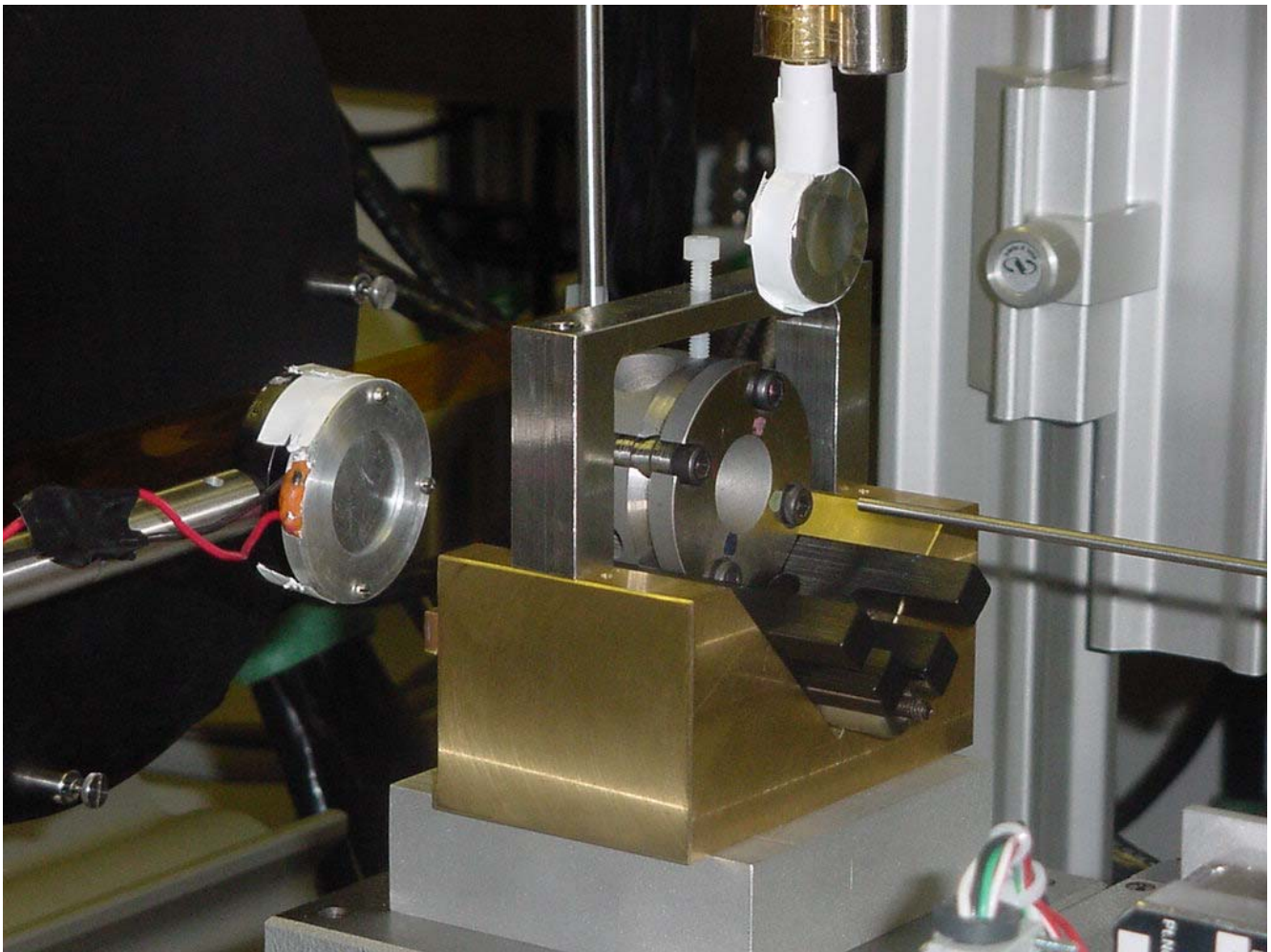


### Offline alignment:

**TO SAVE TIME** an optical off-line pre-alignment system is available: The cross-wire used to optically reference the x-ray beam in the station is used as a reference in the off-line system. The sample is brought to that point, and then its  $x_{\text{off}}, y_{\text{off}}, z_{\text{off}}$  coordinates are transformed to  $x_{\text{on}}, y_{\text{on}}, z_{\text{on}}$  in the corresponding on-beam frame of reference when the cell is moved.



**Note: V-block cell mounting also possible by request...**



**NOTE**

**NO LASER HEATING  
NOR LOW-TEMPERATURE SYSTEMS  
AVAILABLE FOR GENERAL USERS  
BEFORE SUMMER 2004**